

Serial No. 10/046,953

William Kress Bodin

Page 2 of 14

Section I:
AMENDMENT UNDER 37 CFR §1.121 to the
CLAIMS

Claim 1 (currently amended):

A method for detecting a free-space gesture signature conducted with a gesturing instrument, said method comprising the steps of:

providing a plurality of gesturing sensors in a two-dimensional arrangement, each sensor being adapted to detect a gesturing instrument within a proximity of a sensor, each sensor having an independent detection event signal;

determining a sensor sequence from a series of sensor detection events responsive to movement of a gesturing instrument within the proximity of said plurality of sensors; [[and]]

correlating said sensor sequence to a predetermined sequence in order to authenticate a user of said gesturing instrument ~~or to decode a command from said user~~; and

responsive to authentication of said user, authorizing a physical security action.

Claim 2 (original):

The method as set forth in Claim 1 wherein said step of determining a sensor sequence comprises applying timing analysis to said series of sensor detection events.

Claim 3 (original):

The method as set forth in Claim 1 wherein said step of correlating said sequence to an authorized sequence further comprises authorizing a financial transaction.

Serial No. 10/046,953

William Kress Bodin

Page 3 of 14

Claim 4 (currently amended):

The method as set forth in Claim 1 wherein said step of ~~correlating said sequence to an authorized sequence further comprises~~ authorizing a physical security action comprises unlocking a fuel pump.

Claim 5 (currently amended):

The method as set forth in Claim ~~[[4]]~~ 1 wherein said step of authorizing a physical security action comprises unlocking a door.

Claim 6 (currently amended)

The method as set forth in Claim ~~[[4]]~~ 1 wherein said step of authorizing a physical security action comprises allowing removal of a physical item from a controlled access area.

Claim 7 (original):

The method as set forth in Claim 1 wherein said step of providing a plurality of gesturing sensors comprises providing an array of Radio Frequency Identification (RFID) sensors adapted to detect movement of RF ID devices.

Claim 8 (original):

The method as set forth in Claim 1 wherein said step of providing a plurality of gesturing sensors comprises providing an array of acoustic sensors adapted to detect movement of acoustic-reflective gesturing instruments.

Claim 9 (original):

The method as set forth in Claim 1 wherein said step of providing a plurality of gesturing sensors comprises providing an array of infrared ("IR") sensors adapted to detect movement of gesturing instruments which are distinguishable by heat.

Serial No. 10/046,953

William Kress Bodin

Page 4 of 14

Claim 10 (currently amended):

A computer readable medium encoded with software for free space gesture signature conducted with a gesturing instrument, said software causing a processor to perform the steps of:

receiving detection event signals from a plurality of gesturing sensors in a two-dimensional arrangement, each sensor being adapted to detect a gesturing instrument within a proximity of a sensor, each sensor having an independent detection event signal output;

determining a sensor sequence from a series of sensor detection events responsive to movement of a gesturing instrument within the proximity of said plurality of sensors; [[and]]

correlating said sensor sequence to a predetermined sequence in order to authenticate a user of said gesturing instrument ~~or to decode a command from said user; and~~

responsive to authentication of said user, authorizing a physical security action.

Claim 11 (original):

The computer readable medium as set forth in Claim 10 wherein said software for receiving detection event signals from a plurality of gesturing sensors comprises software for applying timing analysis to said series of sensor detection events.

Claim 12 (original):

The computer readable medium as set forth in Claim 10 wherein said software for correlating said sequence to an authorized sequence further comprises software for authorizing a financial transaction.

Serial No. 10/046,953

William Kress Bodin

Page 5 of 14

Claim 13 (currently amended):

The computer readable medium as set forth in Claim 10 wherein said software for correlating said sequence to an authorized sequence further comprises software for authorizing a physical security action comprises software for unlocking a fuel pump.

Claim 14 (currently amended):

The computer readable medium as set forth in Claim ~~[[13]]~~ 10 wherein said software for authorizing a physical security action comprises software for actuating a door lock.

Claim 15 (currently amended):

The computer readable medium as set forth in Claim ~~[[13]]~~ 10 wherein said software for authorizing a physical security action comprises software for allowing removal of a physical item from a controlled access area.

Claim 16 (original):

The computer readable medium as set forth in Claim 10 wherein said software for receiving detection event signals from a plurality of gesturing sensors comprises software for receiving signals from a plurality of Radio Frequency Identification (RFID) sensors adapted to detect movement of RF ID devices.

Claim 17 (original):

The computer readable medium as set forth in Claim 10 wherein said software for receiving detection event signals from a plurality of gesturing sensors comprises software for receiving signals from a plurality of acoustic sensors adapted to detect movement of acoustic-reflective gesturing instruments.

Serial No. 10/046,953William Kress BodinPage 6 of 14

Claim 18 (original):

The computer readable medium as set forth in Claim 10 wherein said software for receiving detection event signals from a plurality of gesturing sensors comprises software for receiving signals from a plurality of infrared ("IR") sensors adapted to detect movement of gesturing instruments which are distinguishable by heat.

Serial No. 10/046,953

William Kress Bodin

Page 7 of 14

Claim 19 (currently amended):

A system for detecting a command or identifying value made by a user through a gesture signature conducted with a gesturing instrument, said system comprising:

a plurality of gesture sensors organized in a two-dimensional arrangement, each sensor having an independent detection event signal which is activated upon detection of a gesturing device within the proximity of a sensor;

a gesture recognition processor having a plurality of inputs for said independent detection event signals, and for performing the steps of:

determining a sensor sequence from a series of sensor detection events responsive to movement of a gesturing instrument within the proximity of said plurality of sensors; [[and]]

correlating said sensor sequence to a predetermined sequence in order to authenticate a user ~~or decode a user command~~; and

responsive to said authentication of said user, controlling a physical security action.

Claim 20 (original):

The system as set forth in Claim 19 wherein said processor is adapted to apply timing analysis to said series of sensor detection events.

Claim 21 (original):

The system as set forth in Claim 19 wherein said processor is adapted to perform financial transaction authorizations.

Claim 22 (currently amended):

The system as set forth in Claim 19 wherein said ~~processor is adapted to control~~ of a physical security action comprises controlling a fuel pump.

Serial No. 10/046,953

William Kress Bodin

Page 8 of 14

Claim 23 (currently amended):

The system as set forth in Claim [[22]] 19 wherein said processor is adapted to actuate a door lock.

Claim 24 (currently amended):

The system as set forth in Claim [[22]] 19 wherein said processor is adapted to allow removal of a physical item from a controlled access area.

Claim 25 (original):

The system as set forth in Claim 19 wherein said plurality of gesture sensors comprises an array of Radio Frequency Identification (RFID) sensors adapted to detect movement of RF ID devices.

Claim 26 (original):

The system as set forth in Claim 19 wherein said plurality of gesture sensors comprises an array of acoustic sensors adapted to detect movement of acoustic-reflective gesturing instruments.

Claim 27 (original):

The system as set forth in Claim 19 wherein said plurality of gesture sensors comprises an array of infrared ("IR") sensors adapted to detect movement of gesturing instruments which are distinguishable by heat.